

ABSTRACT

An application program interface (API) replay tool and method is disclosed for modeling and testing APIs. The replay tool receives as input a set of API calls and associated context information and resources. A set of components are called to map
5 variables and a context into the replay tool environment. An API builder translates the original API call (including mapping memory references of parameters) into a sequence of assembly code instructions, constituting the replayed API call, which is placed in an execution buffer. The execution buffer is thereafter executed in a replay environment including a set of resources extracted from a source binary file associated with the
10 replayed API. Thereafter, the operating system, or other suitable consumer of API calls, executes the call in the context recreated by the API replay tool prior to passing the call.

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